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Economics and Statistics Administration  
U.S. CENSUS BUREAU

# Monthly Wholesale Trade

Sales and Inventories

September 1999

BW/99-9

Issued November 1999

## MONTHLY WHOLESALE TRADE: SALES AND INVENTORIES SEPTEMBER 1999

**Important Notice:** In an effort to reduce cost and provide timely data, information from this report will only be available through the Internet beginning with the press release covering January 2000 data. Access to the data is free using the Internet site shown at the bottom of this page. If you have any questions or want a printed copy of future releases, please contact Scott Scheleur at 301-457-2779.

**Sales.** September 1999 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences but not for price changes, were \$230.9 billion, up 0.5 percent (+/- 0.6%) from the revised August level and were 9.3 percent (+/- 1.1%) above the September 1998 level. The August preliminary estimate was virtually unchanged from last month. Among durable goods, sales of lumber and other construction materials increased 2.0 percent from last month, while hardware, plumbing and heating equipment fell 3.2 percent. September sales of nondurable goods increased 0.7 percent (+/- 0.6%) from August and were up 9.6 percent (+/- 1.7%) from last year. Compared to last month, sales of groceries and related products increased 1.6 percent, and paper and paper products grew 1.3 percent.

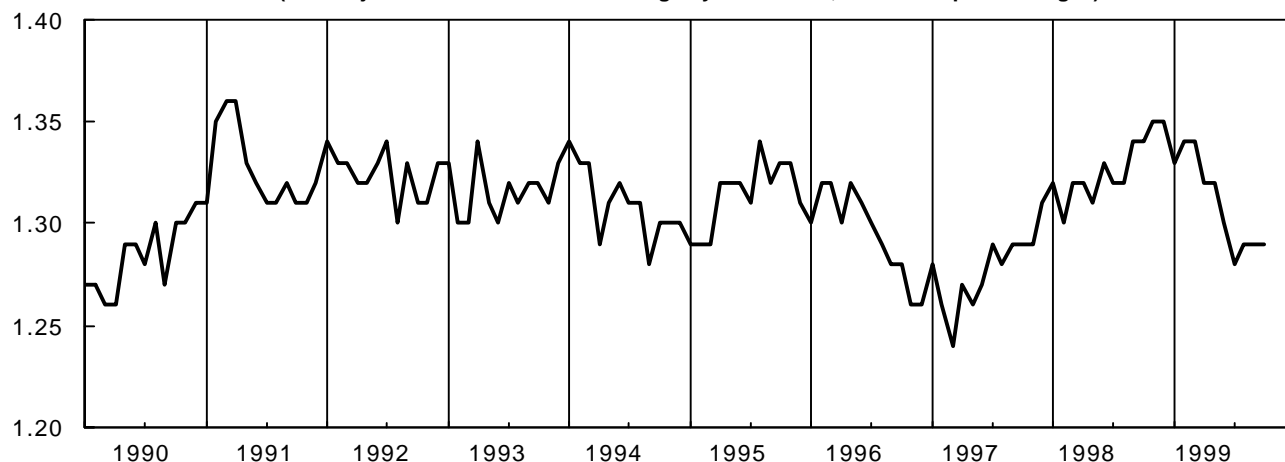
**Inventories.** Total inventories of merchant wholesalers, after adjustment for seasonal variations but not for price changes, were \$297.8 billion at the end of September, up 0.7 percent (+/- 0.3%) from the revised August level and were 4.8 percent above (+/- 0.9%) September 1998. The August preliminary estimate was revised upward \$0.8 billion or 0.3 percent. End-of-month inventories of durable goods increased 0.9 percent

(+/- 0.3%) from last month and were 4.6 percent (+/- 1.0%) above September 1998. Compared to last month, inventories of electrical goods increased 2.0 percent and motor vehicles and automotive equipment grew 1.9 percent. End-of-month inventories of nondurable goods increased 0.4 percent (+/- 0.3%) from August and were up 5.1 percent (+/- 2.1%) from last year. Compared to last month, inventories of petroleum and petroleum products increased 1.3 percent, while beer, wine and distilled alcoholic beverages fell 2.6 percent.

**Inventories/Sales Ratio.** The September inventories/sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.29. The September 1998 ratio was 1.34.

*Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling variability. A discussion of the reliability of the data and general survey methodology appears in BW/98-A Current Business Reports.*

**Monthly Inventories/Sales Ratios of Merchant Wholesalers: 1990 to 1999**  
(Data adjusted for seasonal and trading-day differences, but not for price changes)



Monthly Wholesale Trade for October is scheduled to be released December 9, 1999 at 10:00 a.m.

Address inquiries concerning this report to Service Sector Statistics Division, U.S. Census Bureau, Washington, DC 20233, or call Scott Scheleur, 301-457-2779 or 301-457-2764. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

This report is available on day of issue through the Department of Commerce's online Economic Bulletin Board (202-482-1986). The data are also available on the Internet - <http://www.census.gov/svsd/www/mwts.html>.

Table 1. Estimated Monthly Sales, Inventories, and Inventories/Sales Ratios of Merchant Wholesalers: 1999 and 1998

[In millions of dollars]

SIC <sup>1</sup> code	Kind of Business	Sales						Inventories						Inventories/Sales		
		Monthly			Percent change			Monthly			Percent change					
		Sep. 1999 (p)	Aug. 1999 (r)	Sep. 1998 (r)	Sep./ Aug. Aug.	Aug./ Jul. Jul.	Sep. 99 Sep. 98	Sep. 1999 (p)	Aug. 1999 (r)	Sep. 1998 (r)	Sep./ Aug. Aug.	Aug./ Jul. Jul.	Sep. 99 Sep. 98	Sep. 1999 (p)	Aug. 1999 (r)	Sep. 1998 (r)
<b>Adjusted<sup>2</sup></b>																
	<b>U.S. Total</b>	<b>230,916</b>	<b>229,827</b>	<b>211,305</b>	<b>0.5</b>	<b>1.1</b>	<b>9.3</b>	<b>297,770</b>	<b>295,558</b>	<b>284,138</b>	<b>0.7</b>	<b>0.5</b>	<b>4.8</b>	<b>1.29</b>	<b>1.29</b>	<b>1.34</b>
<b>50</b>	<b>Durable</b>	<b>123,209</b>	<b>122,834</b>	<b>113,016</b>	<b>0.3</b>	<b>0.7</b>	<b>9.0</b>	<b>193,715</b>	<b>191,956</b>	<b>185,139</b>	<b>0.9</b>	<b>-0.2</b>	<b>4.6</b>	<b>1.57</b>	<b>1.56</b>	<b>1.64</b>
501	Automotive	19,283	19,197	17,317	0.4	0.3	11.4	28,749	28,202	25,603	1.9	0.4	12.3	1.49	1.47	1.48
502	Furniture	4,129	4,237	3,997	-2.5	-0.9	3.3	6,105	6,103	6,013	0.0	-1.3	1.5	1.48	1.44	1.50
503	Lumber	8,796	8,625	7,649	2.0	-2.4	15.0	9,044	8,902	8,148	1.6	0.1	11.0	1.03	1.03	1.07
504	Prof. equip.	23,196	23,207	21,452	0.0	2.2	8.1	25,535	25,252	26,730	1.1	-0.5	-4.5	1.10	1.09	1.25
505	Metals	7,494	7,565	7,958	-0.9	-1.6	-5.8	12,746	12,664	13,661	0.6	-1.1	-6.7	1.70	1.67	1.72
506	Electrical	19,851	19,633	17,479	1.1	0.6	13.6	28,109	27,568	25,997	2.0	0.4	8.1	1.42	1.40	1.49
507	Hardware	6,621	6,841	6,314	-3.2	1.5	4.9	13,178	13,144	13,240	0.3	-1.7	-0.5	1.99	1.92	2.10
508	Machinery	20,856	20,858	20,299	0.0	1.9	2.7	52,025	52,042	48,498	0.0	-0.4	7.3	2.49	2.50	2.39
509	Other Durable	12,983	12,671	10,551	2.5	0.9	23.0	18,224	18,079	17,249	0.8	1.0	5.7	1.40	1.43	1.63
<b>51</b>	<b>Nondurable</b>	<b>107,707</b>	<b>106,993</b>	<b>98,289</b>	<b>0.7</b>	<b>1.5</b>	<b>9.6</b>	<b>104,055</b>	<b>103,602</b>	<b>98,999</b>	<b>0.4</b>	<b>1.9</b>	<b>5.1</b>	<b>0.97</b>	<b>0.97</b>	<b>1.01</b>
511	Paper	8,495	8,382	7,704	1.3	2.2	10.3	10,076	10,035	9,408	0.4	1.1	7.1	1.19	1.20	1.22
512	Drugs	12,396	12,352	10,524	0.4	0.7	17.8	17,227	17,358	14,383	-0.8	-0.3	19.8	1.39	1.41	1.37
513	Apparel	7,709	7,646	6,734	0.8	1.9	14.5	11,559	11,548	12,721	0.1	0.0	-9.1	1.50	1.51	1.89
514	Groceries	31,029	30,553	29,215	1.6	2.0	6.2	18,438	18,440	17,097	0.0	1.7	7.8	0.59	0.60	0.59
515	Farm-products	8,204	8,182	8,728	0.3	-2.8	-6.0	12,183	11,905	11,293	2.3	10.5	7.9	1.49	1.46	1.29
516	Chemicals	4,404	4,413	4,493	-0.2	-0.6	-2.0	4,718	4,690	4,917	0.6	-2.4	-4.0	1.07	1.06	1.09
517	Petroleum	13,281	13,180	10,005	0.8	3.2	32.7	4,094	4,042	4,352	1.3	-2.5	-5.9	0.31	0.31	0.43
518	Alcohol	5,626	5,586	5,395	0.7	2.6	4.3	6,347	6,517	6,006	-2.6	-0.2	5.7	1.13	1.17	1.11
519	Other Nondur.	16,563	16,699	15,491	-0.8	2.1	6.9	19,413	19,067	18,822	1.8	3.8	3.1	1.17	1.14	1.22
<b>Not Adjusted</b>														<b>Sales to date</b>		
	<b>U.S. Total</b>	<b>236,937</b>	<b>233,790</b>	<b>216,827</b>	<b>1.3</b>	<b>3.9</b>	<b>9.3</b>	<b>292,729</b>	<b>290,275</b>	<b>279,244</b>	<b>0.8</b>	<b>-0.7</b>	<b>4.8</b>	<b>2,003,638</b>	<b>1,887,979</b>	
<b>50</b>	<b>Durable</b>	<b>128,364</b>	<b>125,871</b>	<b>118,172</b>	<b>2.0</b>	<b>3.6</b>	<b>8.6</b>	<b>192,969</b>	<b>192,366</b>	<b>184,305</b>	<b>0.3</b>	<b>-1.2</b>	<b>4.7</b>	<b>1,075,568</b>	<b>1,016,373</b>	
501	Automotive	18,820	19,216	17,075	-2.1	-0.2	10.2	28,433	27,441	25,270	3.6	-1.5	12.5	167,863	150,793	
502	Furniture	4,352	4,398	4,161	-1.0	5.5	4.6	6,343	6,335	6,241	0.1	-0.2	1.6	36,334	35,511	
503	Lumber	9,350	9,608	8,223	-2.7	0.6	13.7	9,053	9,000	8,156	0.6	-1.5	11.0	77,710	68,711	
504	Prof. equip.	25,052	23,300	23,147	7.5	4.6	8.2	25,254	25,151	26,409	0.4	-2.1	-4.4	200,054	190,877	
505	Metals	7,621	7,731	8,173	-1.4	3.5	-6.8	12,619	12,639	13,511	-0.2	-2.2	-6.6	69,552	73,603	
506	Electrical	21,558	20,516	19,087	5.1	5.4	12.9	28,306	28,257	26,179	0.2	0.0	8.1	170,789	157,180	
507	Hardware	6,886	7,210	6,668	-4.5	0.6	3.3	13,099	13,144	13,161	-0.3	-2.2	-0.5	61,125	58,032	
508	Machinery	20,522	20,879	20,116	-1.7	4.1	2.0	51,037	51,886	47,577	-1.6	-1.9	7.3	183,384	182,030	
509	Other Durable	14,203	13,013	11,522	9.1	7.9	23.3	18,825	18,513	17,801	1.7	2.2	5.8	108,757	99,636	
<b>51</b>	<b>Nondurable</b>	<b>108,573</b>	<b>107,919</b>	<b>98,655</b>	<b>0.6</b>	<b>4.1</b>	<b>10.1</b>	<b>99,760</b>	<b>97,909</b>	<b>94,939</b>	<b>1.9</b>	<b>0.2</b>	<b>5.1</b>	<b>928,070</b>	<b>871,606</b>	
511	Paper	8,945	8,868	8,174	0.9	13.5	9.4	9,895	9,874	9,239	0.2	-0.5	7.1	72,826	66,875	
512	Drugs	12,545	12,241	10,777	2.5	3.4	16.4	16,917	16,907	14,138	0.1	-1.8	19.7	106,785	90,660	
513	Apparel	8,703	8,433	7,589	3.2	8.1	14.7	11,651	11,767	12,835	-1.0	-1.0	-9.2	69,630	57,598	
514	Groceries	30,967	31,011	28,864	-0.1	1.3	7.3	18,512	18,163	17,182	1.9	0.6	7.7	267,934	257,292	
515	Farm-products	8,065	7,495	8,597	7.6	2.1	-6.2	9,174	8,310	8,470	10.4	4.9	8.3	73,006	78,672	
516	Chemicals	4,364	4,567	4,506	-4.4	3.4	-3.2	4,633	4,681	4,824	-1.0	-3.1	-4.0	39,716	41,579	
517	Petroleum	13,029	13,430	9,835	-3.0	7.8	32.5	4,123	3,989	4,382	3.4	-1.5	-5.9	103,967	90,385	
518	Alcohol	5,806	5,860	5,519	-0.9	4.8	5.2	6,626	6,524	6,270	1.6	-1.7	5.7	48,304	44,636	
519	Other Nondur.	16,149	16,014	14,794	0.8	1.7	9.2	18,229	17,694	17,599	3.0	2.8	3.6	145,902	136,320	

p Preliminary estimate. r Revised.

1 For a full description of the SIC codes shown above, see the "1987 Standard Industrial Classification Manual" or the Current Business Reports

"Annual Benchmark Report for Wholesale Trade" publication.

2 Data adjusted for seasonal variations and, in the case of sales, also for trading-day differences. See Table 3 for seasonal adjustment factors used.

**Table 2. Coefficients of Variation and Standard Error for Sales and Inventories**

SIC code	Kind of Business	Coefficients of variation for level (x 100)				Standard error for trend				Coefficients of variation for level (x 100)		Standard error for trend
		Preliminary estimates		Final estimates		Ratio of two consecutive months		Year-to-year estimates		Cumulative sales estimates		Current year cumulative
		Sales	Inv.	Sales	Inv.	Sales	Inv.	Sales	Inv.	Current year	Previous year	to previous year cumulative
		Median	Median	Median	Median	Median	Median	Median	Median			
	<b>U.S. Total</b>	<b>1.3</b>	<b>1.5</b>	<b>1.2</b>	<b>1.5</b>	<b>0.4</b>	<b>0.2</b>	<b>0.8</b>	<b>0.7</b>	<b>1.3</b>	<b>1.1</b>	<b>0.7</b>
<b>50</b>	<b>Durable</b>	<b>1.8</b>	<b>2.5</b>	<b>1.8</b>	<b>2.5</b>	<b>0.6</b>	<b>0.3</b>	<b>1.1</b>	<b>0.8</b>	<b>1.8</b>	<b>2.2</b>	<b>0.9</b>
501	Automotive	4.5	4.8	4.5	4.8	1.1	0.8	2.3	3.1	4.6	5.1	2.0
502	Furniture	6.4	7.9	6.4	7.9	2.2	1.0	2.8	2.3	5.9	6.5	1.8
503	Lumber	5.7	5.3	5.6	5.3	1.3	0.8	2.1	2.9	5.7	5.7	1.5
504	Prof. equip.	6.6	7.0	6.6	7.0	1.4	0.5	3.3	2.0	6.6	5.6	3.0
505	Metals	5.1	10.7	5.1	10.4	1.1	0.7	1.6	2.4	5.0	5.0	0.9
506	Electrical	5.5	7.2	5.6	7.2	1.4	0.6	2.4	2.3	5.6	6.4	1.9
507	Hardware	5.5	6.6	5.6	6.6	1.2	0.6	1.6	2.1	5.5	5.6	0.9
508	Machinery	6.1	6.7	6.1	6.7	2.0	0.5	2.4	1.6	5.9	6.6	1.7
509	Other Durable	6.4	9.6	6.4	9.6	1.4	0.9	2.2	2.9	6.3	6.0	1.6
<b>51</b>	<b>Nondurable</b>	<b>2.0</b>	<b>2.5</b>	<b>2.0</b>	<b>2.4</b>	<b>0.6</b>	<b>0.4</b>	<b>0.9</b>	<b>1.3</b>	<b>2.0</b>	<b>1.8</b>	<b>0.6</b>
511	Paper	5.1	5.1	5.0	5.1	1.0	0.5	1.8	1.5	5.8	5.3	1.0
512	Drugs	6.3	4.8	6.3	4.7	1.0	0.6	2.2	1.6	6.1	6.7	1.4
513	Apparel	5.5	7.2	5.4	7.3	2.1	1.1	3.2	2.4	4.9	4.5	1.9
514	Groceries	3.0	4.9	3.0	4.9	0.6	0.6	1.1	1.4	3.0	3.2	0.7
515	Farm-products	6.8	8.9	6.8	8.6	2.3	1.5	2.8	4.2	6.8	5.8	2.3
516	Chemicals	5.4	6.3	5.6	6.3	1.3	0.9	1.8	2.3	5.3	5.6	0.9
517	Petroleum	7.0	13.7	6.9	13.7	1.0	1.3	1.6	1.9	6.8	6.8	1.4
518	Alcohol	6.1	8.5	6.2	8.6	1.5	1.3	1.8	2.0	6.0	6.3	1.4
519	Other Nondur.	6.6	8.3	6.7	8.0	1.9	1.2	4.1	4.2	7.1	5.5	2.7

**Note:** The median measures of variability are based on the most recent 12 months of data.

## Sample Design and Reliability of Data

There are two types of errors possible in an estimate based on a sample survey: sampling and nonsampling.

Sampling errors occur because observations are made on a sample, not on the entire population, and different samples could have led to different estimates. Standard errors and coefficients of variation, as calculated for this report, are measures of sampling variation. The margin of sampling error, as used on page 1, gives a range about the estimate which is a 90% confidence interval. If, for example, the trend estimate is up 1.2% and the standard error is 0.9%, then the margin of sampling error is  $\pm 1.65 \times 0.9\%$  or  $\pm 1.5\%$ , and the 90% confidence interval is -0.3% to +2.7%. If the interval contains 0, it cannot be stated with certainty whether there was an increase or decrease. For monthly level, the coefficient of variation (CV) is given. The resulting confidence interval is the estimated value  $\pm 1.65 \times CV \times$  (the estimated value).

Nonsampling errors are usually attributed to many possible sources: (1) coverage error - failure to accurately represent all population units in the sample,

(2) inability to obtain information about all sample cases, (3) response errors, possibly due to definitional difficulties or misreporting, (4) mistakes in recording or coding the data obtained, and (5) other errors of collection or processing, or in imputing for missing or inconsistent data. Coverage error has an effect on the accuracy of estimates for this survey to the extent that the administrative records system, which forms the basis of our survey universe frame, does not contain all legal businesses. A major source of nonsampling error in the published estimates is due to the need to impute data for nonrespondents and for late and inconsistent reports. For all kinds of businesses combined, imputed data amount to about 31 percent of the total monthly wholesale sales estimates and 32 percent of the total monthly wholesale inventories estimates.

Nonsampling errors also occur in complete censuses. Although no direct measures of these errors have been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data to minimize their influence.

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Table 3. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers

SIC code	Kind of Business	Sales						Inventories					
		1999					1998	1999					1998
		Oct.	Sep.r	Aug.r	Jul.	Jun.	Sep.r	Oct.	Sep.r	Aug.r	Jul.	Jun.	Sep.r
	<b>U.S. Total<sup>1</sup></b>	<b>1.021</b>	<b>1.026</b>	<b>1.015</b>	<b>0.990</b>	<b>1.043</b>	<b>1.027</b>	<b>1.007</b>	<b>0.983</b>	<b>0.981</b>	<b>0.993</b>	<b>0.985</b>	<b>0.982</b>
<b>50</b>	<b>Durable</b>	<b>1.037</b>	<b>1.044</b>	<b>1.024</b>	<b>0.995</b>	<b>1.058</b>	<b>1.048</b>	<b>0.996</b>	<b>0.997</b>	<b>1.001</b>	<b>1.012</b>	<b>1.001</b>	<b>0.997</b>
501	Automotive	0.998	0.976	1.001	1.006	1.064	0.986	0.999	0.989	0.973	0.992	0.988	0.987
502	Furniture	1.052	1.054	1.038	0.975	1.008	1.041	1.002	1.039	1.038	1.026	1.016	1.038
503	Lumber	1.062	1.063	1.114	1.081	1.123	1.075	0.962	1.001	1.011	1.027	1.033	1.001
504	Prof. equip.	1.015	1.080	1.004	0.981	1.064	1.079	1.004	0.989	0.996	1.012	0.994	0.988
505	Metals	1.014	1.017	1.022	0.972	1.054	1.027	0.979	0.990	0.998	1.009	1.003	0.989
506	Electrical	1.072	1.086	1.045	0.998	1.035	1.092	0.983	1.007	1.025	1.029	1.020	1.007
507	Hardware	1.071	1.040	1.054	1.064	1.110	1.056	0.986	0.994	1.000	1.005	1.014	0.994
508	Machinery	0.995	0.984	1.001	0.979	1.061	0.991	0.996	0.981	0.997	1.012	1.005	0.981
509	Other Durable	1.114	1.094	1.027	0.960	0.998	1.092	1.041	1.033	1.024	1.012	0.992	1.032
<b>51</b>	<b>Nondurable</b>	<b>1.014</b>	<b>1.005</b>	<b>1.005</b>	<b>0.984</b>	<b>1.028</b>	<b>1.004</b>	<b>1.026</b>	<b>0.959</b>	<b>0.944</b>	<b>0.958</b>	<b>0.956</b>	<b>0.959</b>
511	Paper	1.024	1.053	1.058	0.953	1.004	1.061	1.006	0.982	0.984	1.000	0.981	0.982
512	Drugs	1.006	1.012	0.991	0.965	0.998	1.024	1.013	0.982	0.974	0.989	0.969	0.983
513	Apparel	1.091	1.129	1.103	1.039	1.002	1.127	0.988	1.008	1.019	1.029	1.016	1.009
514	Groceries	1.001	0.998	1.015	1.022	1.025	0.988	1.052	1.004	0.985	0.995	0.988	1.005
515	Farm-products	1.045	0.983	0.916	0.872	0.953	0.985	1.162	0.753	0.698	0.735	0.773	0.750
516	Chemicals	1.001	0.991	1.035	0.995	1.092	1.003	0.980	0.982	0.998	1.006	0.993	0.981
517	Petroleum	1.014	0.981	1.019	0.976	0.985	0.983	1.044	1.007	0.987	0.977	0.957	1.007
518	Alcohol	0.995	1.032	1.049	1.027	1.110	1.023	1.089	1.044	1.001	1.016	1.015	1.044
519	Other Nondur.	0.946	0.975	0.959	0.963	1.097	0.955	0.962	0.939	0.928	0.937	0.950	0.935

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1 Adjusted sales and inventories data shown in Table 1 are obtained by dividing the unadjusted data by the adjustment factors shown above for the corresponding group. Adjusted data for the totals are obtained by adding the durable and nondurable goods. Seasonal factors shown for the totals will provide an approximation of the adjusted estimates, but may show small differences from the published data.

Note: The seasonal factors shown have been computed based on monthly estimates through the current month preliminary estimates.

